The fair and appropriate testing of disabled candidates using psychological testing

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The Fair and Appropriate Testing of Disabled Candidates using Psychological Testing

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According to recent government data, 22% of the UK population report that they have a disability (ONS, 2018). A disability is described by the World Health Organization as "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (Oliver, 2017, p.30). Whilst there is a growing movement and discourse surrounding such definitions, and the deficit model that can be implied, 'disability' is the term used in UK Law. As such, in discussing 'disability' as a protected characteristic in this paper, our aim is to highlight some of the practical issues that need to be considered when assessing disabled candidates in psychological testing scenarios across occupational, educational and forensic settings. We commence by setting out some of the legal requirements that should guide best testing practice, outline some of the associated practical challenges, and provide insights from case studies that have emerged as a result of our work on the BPS Psychological Testing Verifiers Committee (which oversees verified assessor training in the UK).

Despite the apparent prevalence of disability in the population (just over a fifth of people, see above), considerations of disability in the design and validation of psychological assessments has traditionally been lacking (Pitoniak & Royer, 2001). One likely reason for this omission is that many relevant conditions appear on a spectrum, so even for candidates

who all carry the same disability 'label', the degree of functional impairment that needs to be accommodated within any testing scenario, is wide.

Yet, to assess disabled candidates fairly and appropriately with any of the multitude of psychometric assessments available, practitioners need to know how to accommodate their needs. This is to ensure that measurement of the construct in question (ability, aptitude, personality, etc.) is not confounded by aspects of the person's disability (Cumming, Dickson & Webster, 2013; Geisinger, 1994). For example, being unable to read questions clearly, or being too anxious to participate in a formal testing environment with other people, could limit a disabled person's opportunity to optimally demonstrate their knowledge, ability or other typical characteristics. Adjusting (UK term) or accommodating (US term) for the needs of disabled persons is a legal requirement. This is set out in the UK 2010 Equality Act, which stipulates that discrimination (direct or indirect), harassment or victimisation of persons with such protected characteristics is unlawful. This extends to psychological testing. Despite the best intentions and efforts of assessors, confusion often abounds with regards to how best to implement best practice for accommodations or adjustments, so that both disabled and non-disabled candidates are treated fairly and with consideration.

In our role on the BPS Verifiers Committee, we note that there are six competency areas (see Table 1) that explicitly ask verified assessors to consider disability when training delegates in psychological testing. Yet, assessors are often unsure about how best to meet these competencies. For example, competency area 103.5 (108.5 Forensic) asks whether test-users can "*ensure that any necessary test accommodations for disabled candidates are available, well understood and appropriately provided"*. Competency 213.11 (223.11 Forensic) meanwhile looks at the practical implementation of adjustments and accommodations for disabled people. This competency includes the rather unwieldly advice that standardisation, technical qualities and restrictions of tests should be adhered to whilst

also ensuring that accommodations, adjustments and reasonable judgement is applied (BPS Test User Standards for Assessors, 2017). Yet, how does an assessor make such judgements and then appraise whether any adjustments and accommodations are acceptable and fair?

Table 1. Competencies from the BPS Test User Standards for Assessors that explicitly relate to Disability (Occupational, Forensic or Educational as indicated).

Competency area	**Assessment requirements**
103.5 (Occupational + Educational) 108.5 (Forensic)	The Test User can ensure that any necessary test accommodations for Disabled candidates are available, well understood and appropriately provided.
103.2 (Educational)	Test users should demonstrate awareness of the need to provide sufficient information for candidates with specific disabilities and to decide whether they may need an accommodation. Teachers and EPs generally take on the responsibility for deciding on accommodations for disability, not the pupils.
201.2 (Occupational)/218.2 (Forensic)	The Test User can describe how disability may interact with ability.
202.2 (Educational)	Describe how disability may interact with measures of ability and attainment.
213.8 (Occupational) 223.8 (Forensic) 213.8 (Educational)	The Test User can understand the law relating to direct and indirect discrimination on the grounds of disability.

213.9 (Occupational + Educational) 223.9 (Forensic)	The Test User can ensure that all mandatory requirements relating to candidate's and client's rights and obligations under relevant current legislation are clearly explained to both parties. Ensure that all mandatory requirements relating to test taker's and test user's rights and obligations under relevant current legislation and professional and organisational guidelines and policies are clearly explained to all parties.
213.11 (Occupational + Educational) 223.11 (Forensic)	The Test User can describe best practice regarding assessment of people with disabilities including a process for identifying needs and, where required, ensuring appropriate adjustments are made to testing procedures.
214.6 (Occupational + Educational) 224.9 (Forensic)	The Test User can take into account the impact on interpretation of any accommodations for disability.

In undertaking verification visits with (both prospective and current) verified assessors, we have noticed that these issues arise on a not-infrequent basis. Assessors most commonly describe three ways in which they deal with disability issues in test-user training:

- Firstly, some assessors address the verification competencies by recommending contact with test-publishers for guidance on how to accommodate disability.
- Secondly, others indicate that they advise their delegates to ask the disabled person to provide a statement of special needs, or equivalent.
- Finally, some assessors suggest that they simply advise not to test disabled candidates using psychometrics.

Each of these options is potentially problematic, and possibly unlawful. For example, contacting the test publisher for advice might appear to be sound guidance at first glance. However, in reality, would the test publisher know how much extra time should be allowed for those with dyslexia, visual impairments, hearing loss, etc? Have they consulted with

expert organisations such as MIND, RNIB, British Dyslexia Association, Action on Hearing Loss, etc? Is the same amount of extra time fair for all people with parity of condition? Has the test been validated with disabled people, or indeed, has it been validated with disabled people who have been given extra time, to ensure that this is appropriate and not unfairly discriminating against either disabled or non-disabled people? These are all complex questions which a test publisher may not be in a position to answer in full.

Secondly, in asking for statements of special needs[1], or simply for the advice of the disabled person, the disabled person has some control over what adjustments or accommodations are suggested (Roach & Beddow, 2011). Yet many adults may not have been recognised as having difficulties at school and are therefore unlikely to have statements of special needs. Further, for those who do have such statements, are these still relevant, or do they need updating following the candidate's departure from formal education settings? The implication would seem to be that once an individual has a statement, needs will not change. This may not be the case for all disabilities, so ensuring that information is current is important. In addition, when candidates suggest adjustments that appear reasonable (individuals are often experts on their own disability) how do these impact the reliability and validity of results? As an example, if a blind or partially sighted person asks for a reader and scribe to assist them in completing a personality assessment on-line, it is possible that their answers might be influenced by vocally expressing answers to potentially deeply personal questions. Social desirability and impression management, as well as embarrassment or trust concerns, could impact how people choose to answer when a scribe/reader is present (Bergen & Labonté, 2019). The same would be true for an individual who is Deaf and working

[1] These are set out in so called Education and Health Care Plans, EHCPs for school age children once they have been referred to appropriate assessments. However, the referral process can be cumbersome and lengthy in itself.

through an interpreter, whereby understanding of concepts and exposure to opportunities to respond are further salient factors (Stinson & Liu, 1999).

Finally, denying a disabled person the opportunity to take a test at all is occasionally suggested for practical or cost reasons. There may be good rationale for this, for example if the understanding of terminology or concepts involved would make it potentially inappropriate to proceed. Nevertheless, it requires careful consideration as to whether any differential treatment might inadvertently create a discriminatory environment, or make people feel uncomfortable to the extent that this could constitute harassment.

These scenarios highlight the complex issues faced by test-users and assessors and are not unique to psychological testing. Any form of assessment, including in the school system, also grapples with such concerns (Cumming et al., 2013), in the context of the Equality Act 2010. The verifiers committee is keen to work with assessors, experts and test-publishers to consider how we can develop clearer, fairer and more inclusive processes to ensure that the assessment of disabled candidates no longer operates on an *ad-hoc*, inconsistent basis. Inclusivity and consideration of equality and fairness should be at the heart of best practice in psychological assessment. To open the dialogue about how best to move forwards with advice and guidance to assessors and test-users, we now share some case studies and examples. We focus on when (i) psychological testing has potentially failed candidates by not considering the issue of disability more fully, or (ii) where consideration of disability has led to greater awareness and progress in terms of testing protocol.

Working with blind or partially sighted candidates

Previous research conducted by RNIB Psychologists during the late 1990's considered how tests requiring the processing of visual or verbal information had the potential to discriminate against blind and partially sighted candidates. Partially sighted candidates can be hindered when accessibility to materials (for example in terms of their

visual acuity), and additional time taken to scan visual information (based on issues such as the size of print, font/format and size of images presented), is not adjusted for (Baron & Ham, 2000). Individuals may, for example, need to work with magnifiers, (slowing reading and processing speed), or require differing colour combinations when using computer technology, in order to best access information (Atkins, 2012). For (congenitally) blind individuals, having shared understanding of abstract concepts is an issue (for example understanding colours), whilst individuals also experience additional memory demands when unable to read information, instead needing to listen to and remember spoken text. The developmental experiences of blind children are recognised in the literature to be qualitatively different to those of sighted children (Wright, 2008). All of these issues will impact the use of psychometrics with blind and partially sighted individuals (Baron & Ham, 2000).

In addition, assessment tasks requiring group-based activities may disadvantage blind and partially sighted individuals, who are unable to observe non-verbal and interpersonal cues, or acknowledge the positioning of individuals within the room. Therefore, practical considerations - such as introducing group members at the outset, ensuring lighting levels are good, and encouraging the visually impaired individual to enter the conversation at pertinent points - will all assist in limiting adverse impact in terms of the assessment process.

The BPS PTC (Psychological Testing Centre) Guide on test use with individuals who are blind or partially sighted provides guidance about how assessors can attend to the needs of blind and partially sighted people (Baron, 2006). An updated version of this document can be found at: https://ptc.bps.org.uk/information-and-resources/information-testing/guidelines-testing-and-test-use [See 'Disability' tab. Visual impairment and psychometrics, 2016].

Working with Deaf candidates

Specialists working in the field of deafness and hearing loss, acknowledge the impact on language development, in particular of pre-lingual Deafness (Moeller, Osberger &

Eccarius, 1986), which can hinder performance on tests that are verbally loaded. There is also a range of literature acknowledging Deaf culture and recognising differences in terms of developmental experiences that can impact interpretation of questions (Wright, 2008). Professional literature on the mental health issues of Deaf individuals (O'Rourke & Grewer 2005) also indicates how issues associated with Deafness have the potential to impact outcomes of psychometric testing.

Professional literature indicates that ability tests used with Deaf individuals tend to measure previous access to education, rather than intellectual capacity per se (Cromwell, 2005). Verbal subtests (for example of the WAIS: Wechsler Adult Intelligence Scale), that contribute to a Full-Scale IQ assessment, under-estimate the capacity of a Deaf individual and are only indicative of minimum levels of intellectual ability (Maller & Braden (2011). Perceptual reasoning sub-tests provide a more useful estimate of ability/potential for a Deaf person, in terms of reliability and validity (e.g. WAIS-IV: Braden, 1994),

Further, assessment tasks that require group-based activities may disadvantage an individual with hearing loss, given that individuals may not be able to easily pick up on the dialogue within the group context. Consequently, such persons may feel isolated or disadvantaged, which could potentially constitute grounds for harassment under the Equality Act, 2010.

Advice produced by the BPS PTC Guidance (see: *Hearing Loss, Deafness and Psychometric Testing*) document a range of issues to be aware of when using psychometrics with Deaf individuals or those with hearing loss. It addresses the issue of sharing personal information when working through an interpreter, (for example in terms of personality measurement), and the use of language-based or ability tests that might be differently interpreted or experienced by Deaf individuals. It also documents practical issues such as working with Induction loops, accessing and using interpreter services, and ensuring correct

lighting levels in test administration rooms. For example, when working through an interpreter, Deaf test takers may be required to provide or verbalise sensitive and personal information, more so than for those individuals able to complete the task themselves. This can affect how a person responds and it is therefore important to ensure the skills of the interpreter and confidentiality of information. In addition, interpretation involves providing overall meaning, rather than translation, in terms of exact words. This might render such measures as no longer standardised, dependent again upon the skills of the interpreter, as well as the reception capacity of the test taker.

Literacy and numeracy needs

In the Forensic context, it is known that a number of offenders have literacy and numeracy issues, often due to a range of complexities, for example social inequality, lack of educational opportunity, negative life experiences (abuse, neglect etc.), along with undiagnosed disabilities (e.g. Attention Deficit Hyperactivity Disorder, Autism Spectrum Disorder, Specific Learning Difficulties/dyslexia or Learning/Intellectual Disability) (Clark & Dugdale, 2008). Such disabilities are sometimes missed during schooling, leading to disenfranchisement and, in some cases, exclusion from formal education. For some, this can lead to offending behaviours. Such negative experiences of schooling and missed educational opportunity can impact testing outcomes, particularly where tests are assessing crystallized knowledge acquired through formal, structured learning opportunities (Clark & Dugdale, 2008).

These challenges, along with levels of incidence of Traumatic Brain Injury, Learning/Intellectual Disability, Specific Learning Difficulties/dyslexia, Mental Health and Personality Disorder within the offender population, make testing fairly and equitably a key concern for Forensic Psychologists (see, for example the Bradley Report, 2009). Forensic Psychologists need to consider the appropriateness of existing norm groups and the relevance

of the tool in the context, alongside the potential impacts of disability when assessing offender populations. Use of the WAIS, for example, might involve consideration of special groups, such as individuals with Autism Spectrum Disorder (ASD), schizophrenia, or traumatic brain injury, and its corresponding impact. Being aware of the professional literature therefore becomes important to make apposite and defensible decisions.

Consideration of the range, nature and level of language found within a psychometric is important when working with learning disabled offenders or those with ASD (where metaphors or more abstract concepts can be more challenging). In the case of personality measures, whether the individual has had opportunity to experience situations referenced within the tool (which may not be the case for certain disabilities) must be considered. Therefore, completing a pre-assessment interview to ensure that consideration of disability forms part of the wider assessment process becomes important.

Risk assessments developed for use with offenders who have learning/intellectual disabilities, for example ARMIDILO-S, (The Assessment of Risk and Manageability of Individuals with Developmental and Intellectual Limitations who Offend – Sexually) are available (Lofthouse, Lindsay, Totsika, Hastings, Boer & Haaven, 2013). Other risk assessment tools have also been researched, taking into account learning/intellectual disabilities of offenders, include the Hare Psychopathy Checklist-Revised (Morrissey, 2003). Again, consideration of professional literature alongside knowledge of alternative tools to adjust for/accommodate individuals with disabilities in a forensic context become vital to ensure defensibility.

Testing challenges in a work context

Recently, awareness of neurodiversity, or neurodivergence (a movement that frames human cognitive functioning on a spectrum, rather than pointing to distinct ‘abnormalities’ – see, e.g. Armstrong, 2000) has grown. Yet, such awareness has not filtered through into best

selection practice. A common question is how to accommodate candidates with dyslexia. It is evident that even experts find it hard to agree on a standard definition here. It is also commonly thought that dyslexia predominantly presents with reading and spelling difficulties, yet research shows that difficulties with memory and organisation are the most common issues (Doyle & McDowall, 2015). Candidates who experienced a study support plan in higher education have habitually been given a 20% time extension for unseen exams. Often, these candidates expect the same adjustment in occupational assessment settings, as a blanket rule; yet, it is more important to consider content and criterion validity (for an overview of these constructs please refer to Rust & Golombok, 2014).

For instance, consider a tightly timed verbal ability test being used as part of a screening process. Such a test requires speedy and accurate reading of instructions with the typing or writing of replies under intense time pressure. Yet, the accurate and speedy reading of instructions may not be crucial to the job. Consider a new media-account lead who spends time travelling to clients, building relationships, and planning presentations and reports *at their own pace*. In this job role, it is not necessary for a participant to show they can read and process instructions on a test swiftly, and so a reasonable time adjustment is justified.

There is very little research to guide best practice in this area. Although some US studies exist that demonstrate that disabled college students perform better with longer time limits (Alster, 1997; Lewandowski, Cohen & Lovett, 2012), there appears to be a dearth recent UK research. This is worrying for several reasons. First, diagnostic criteria, legal and policy frameworks continue to evolve. Secondly, many practices prevalent in education, such as providing extra time, allowing for quiet examination rooms, and provision of note-takers or scribes, are ‘shrouded in secrecy’ (Vickers, 2010, p.2). This is not helpful for test takers, assessors or anyone else involved in the process, as such lack of transparency does not allow

researchers to accumulate evidence for best practice. It also fuels the assumption that one adjustment rule 'fits all'.

Conclusions

The onus is now on psychologists to raise concerns regarding the potential for discrimination and disadvantage relating to disability adjustments in psychological testing. This can be effectively achieved by discussing these issues with those undertaking Psychological Testing Qualifications during test-user training. Drawing attention to practical advice, such as that developed by the PTC/ITC (International Test Commission) and encouraging assessors to develop awareness of the needs of those with different disabilities is a useful step. Signposting professional articles, literature and professional bodies that can help inform guidance is also recommended during test-user training. Inevitably however, far more research is needed to assist practitioners and test-publishers in navigating this complex area to ensure that all candidates are given equitable, fair and considerate opportunity at all stages of assessment from pre- to post-testing. If psychological assessment is concerned with assessing valid constructs (rather than protected characteristics), in a reliable way, then such a remit has never been more important.

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